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# Capturing the wider benefits from football participation: a social return on investment (SROI) evaluation of a community based football intervention

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#### **Abstract**

**Background** Gendered approaches to engage men are recommended for health promotion, with community settings, that involve physical activity and specifically football being frequently employed. One such football initiative, Football Cooperative (FC), has operated in Ireland since 2017 bringing men together twice a week for 'pick up' games. However, there is limited understanding of the reach or impact of the initiative, and an economic evaluation would inform policy decisions around the allocation of scarce resources within the public health and community-based setting.

**Methods** A localised version of cost-benefit analysis – Social Return on Investment (SROI) – was employed to assess this initiative. This involved a study of one site in 2021/2022 without a control group, and a range of data (self-reported and anthropometric) were collected at baseline, 3, 6 and 12 months. One hundred and twenty-three Participants (P) were available for this study, which also gathered data from other stakeholders, Significant Others (SO), Community Partners (CP) and Volunteer Coordinators (VC).

**Results** Outcomes were validated with all stakeholders and measured by the stakeholders. Input costs were also gathered, and a comparison of outcomes with costs showed an SROI ratio of €17.60 in benefit for every €1 invested in the single FC site. Additional analysis exploring the implications of scaling this initiative to ten sites proposes an SROI ratio of €9.46 for every €1 invested.

**Conclusions** The computed SROI ratios for a single site and for ten sites compare favourably with those of other health initiatives particularly other football and community based SROI evaluations. Furthermore, this study quantifies the benefits of football participation from a mental health and social perspective in addition to physical benefits, and it also highlights the benefits of football participation to other stakeholders such as participants' family (SO). Future research could expand on this study and investigate the impact of future football initiatives in diverse locations with larger cohorts.

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**Keywords** SROI, Social enterprise, Football, Men's health, Social value, Scale-up

#### Introduction

Previous research [1, 2] has proposed the adoption of gendered approaches to men's health in order to reach and engage men effectively. Such tailored approaches use opportunities for peer support and connect masculine ideals (autonomy, control, resilience) with being healthy [3-6]. Community settings are frequently employed for such initiatives such as in 'Men on the Move (MOM)' [7] and 'Sheds for Life (SFL)' [8] the delivery typically involves physical activity - specifically sports-based programmes or group-based exercise [9, 10]. These programmes frequently draw on men's interest and involvement in football [11] and initiatives have been delivered through football clubs in England, Scotland and Australia (Football Fans in Training - FFIT) which have achieved successful outcomes in terms of physical activity and weight loss [12].

Football Cooperative (FC) is one such football-based community initiative that was established in Ireland in 2017 using 'pick up football' (informal/non-league based) as a 'hook' to bring men together. These are football games with flexible attendance, do not have a leaguebased format and which feature a 60-90 min game of numbers from 5 to 11 a side. It is run by volunteer coordinators, who organise two football games on an artificial grass surface a week in advance of schedule via a social media app. This includes picking teams to ensure competitive games, as well as managing game logistics on the night (bibs and balls, payment to pitch owners). The FC initiative is driven by values that cultivate community and inclusivity; however, there is limited understanding of the reach or impact of the initiative [13]. Currently, the FC initiative is based at two sites in Ireland and the scale-up and sustainable delivery of the initiative will mean competing for scarce resources within the public health and community-based setting [14]. To support policy decisions around the allocation of limited resources, health economic evaluations that utilise a cost-benefit logic can play a crucial role [15].

Cost-benefit initiatives seek to monetise broad programme benefits and costs [16] and recent research in this field of health economics has identified that many health authorities want a localised version of a Cost Benefit Analysis (CBA), which is why they have been drawn to Social Return on Investment (SROI) [17]. The practice of SROI has increased in recent years [18], as interest has grown in this bottom-up method as being more appropriate for smaller groups within an economy [17]. The SROI approach has a number of principles that include understanding how and what changes occur as a result of an intervention; this guides the approach to selecting

which outcomes to measure and value in order to verify that the change has taken place. In considering an SROI for the FC initiative, one advantage it offers is its capacity to capture well-being and social impacts in the analysis [19].

This study will make a number of contributions that are linked to the generation of an SROI for one site of the FC initiative. Firstly, an SROI calculation for a recreational football initiative will add an economic argument to studies that have found benefits for football-based initiatives [20, 21]. In this case, the ratio of benefits to costs in financial terms will be added and this will be of benefit to sporting bodies when building a case for funding for expansion of their activities. Secondly, it will allow the relative importance of various outcomes from football initiatives to be assessed - previous work has suggested that physical, mental, and social benefits accrue from such activities, but the SROI calculation will inform which of these is valued the highest in financial terms. Thirdly, this study will assess how participation levels in football affects the attainment of certain outcomes and will offer clarity on whether high levels of participation are needed to achieve various outcomes. Finally, on completion of the calculation of an SROI for a single FC site, the costs and benefits associated with scale-up of the initiative to 10 sites will be generated and this will allow the FC initiative organisers to see the costs and outcomes envisaged in such a scale-up implementation plan.

This paper is structured as follows: firstly, the research design is described followed by an overview of how the principles of SROI were applied to this FC initiative site. The data collection efforts and the approach taken to assess participation and measure outcomes are described in subsequent sections leading to the calculation of the SROI. An estimate of the costs and benefits in scaling the SROI initiative to ten sites is then outlined before the findings are discussed with an acknowledgement of the limitations of the SROI approach.

#### Research design

A pragmatic quasi-experimental one site repeated measures study, without a control group (of participants), was adopted to assess the impact of the FC initiative on participants. Feasibility studies can be conducted without control groups with a focus on assessing the practical and logistical aspects of conducting a larger study [22]. A cross sectional survey design was adopted for all other stakeholders. The study was conducted in 2021 following the lifting of COVID-19 restrictions and the design was considered appropriate as it was neither logistically feasible nor ethical to conduct a randomised controlled trial

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at this time given the mental health issues arising from lockdown COVID-19 restrictions [23]. Non-randomisation and the absence of a control group are acknowledged as limitations in this approach, but the approach taken was congruent with action-based research in a real world setting.

This study was conducted at one FC initiative site which, at that time, had 123 registered members. Participants (P) and all other stakeholders, Volunteer Coordinators (VC), Significant Others (SO), Community Partners (CP) were initially contacted by the FC initiative gatekeeper and invited to participate in the study. The gatekeeper also arranged for subsequent surveys to be distributed via the FC initiative WhatsApp group and email database, see [13] for the full protocol.

#### Overview of application of SROI to FC

In line with previous applications of SROI [24, 25], the principles of SROI were applied to FC as shown below:

#### Principle 1 involve stakeholders

Stakeholders are "any group or individual who can affect or is affected by the achievement of the firm's objectives" [26]. The importance of this principle is that the 'value' defined is determined by 'those affected by or who affect the activity'. In this analysis, stakeholders were involved in every stage to help inform the outcomes to be measured and the valuation of those outcomes. Stakeholders were also involved in determining and valuing inputs. For the FC initiative, four stakeholders were identified after consultation with the FC initiative gatekeeper:

- Participants (P) those who engage in football and benefit directly from such engagement. A mixture of those who participated regularly and irregularly was sought for initial consultations.
- Volunteer Coordinators (VC) those who derive benefit from altruistically giving of their time via volunteering.
- Significant Others (SO) those who derive benefit indirectly through their partners' participation in FC.
- Community Partners (CP) financial benefit to the community club that leased its facilities to FC.

#### Principle 2 understand what changes

Stakeholders will experience change [intended/unintended, and or positive/negative] because of activities. This principle requires evidence of what changes accrued and transparency surrounding the process of how that evidence was generated. A Theory of Change (ToC) was developed and verified with each stakeholder group after a period of consultation. This consultation period included interviews and focus groups with 17 participants (with a mix of participation levels), two significant

others, six volunteer coordinators and two community partners in May 2021. These interviews were conducted online due to Covid-19 restrictions after ethical approval was obtained and after assurances around confidentiality and the management of this information were agreed.

The validated ToC for the four stakeholder groups are shown in Figs. 1, 2, 3 and 4 and this led to four outcomes being generated and verified for the P stakeholder group. Equally, three outcomes were confirmed for the VC, three for the SO and two for the CP. The verification of these ToC took place via interviews and focus groups in July 2022.

# Principles 3 & 4 value what matters and only include what is material

In some situations, market values for outcomes experienced by stakeholders may not exist and in such cases financial proxies can be used; however, for this study, each stakeholder group was asked in online surveys to value the outcomes attained thus meaning that proxies did not need to be used.

The information and evidence must be based on the evidence from stakeholders, so decisions focused on the changes that matter. In this analysis, materiality was adjudicated for each outcome identified by stakeholders; and only those outcomes that were identified and valued by the stakeholders were included. For example, while the initial ToC for the CP identified 'Time Commitment' as an outcome of their involvement in the FC initiative, this outcome was deemed 'immaterial' when they valued this outcome at  $\epsilon 0$ . The ToC was amended to reflect this.

#### Principles 5 & 6 do not overclaim and be transparent

These principles ensure that practitioners only claim the impact that is due to the activity and that they 'take account of what would have happened anyway' if the activity did not happen. A full disclosure of any such assumptions and limitations as they arise is also expected in such an analysis. A conservative approach was thus adopted in this analysis particularly with respect to assigning value, attributing value based upon relative impact, and discounting factors. The logic of assumptions made and limitations of the analysis were also acknowledged with a view to being as transparent as possible. The independence of the various outcomes for each stakeholder was also considered with the research team using qualitative and quantitative data to confirm that outcomes were largely independent for all stakeholders.

# Principles 7 & 8 verify the result and be responsive

An SROI analysis invariably involves subjectivity and thus literature [27] as well as the support of an SROI practitioner was consulted to support decisions taken [28]. The final SROI report was accredited by SROI UK in

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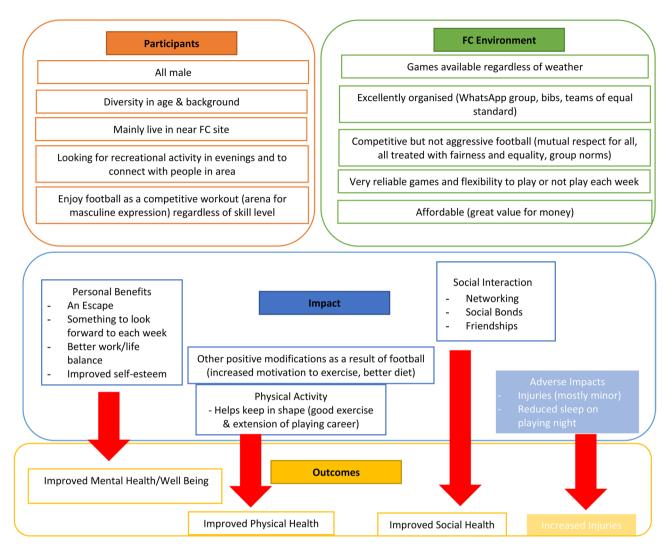


Fig. 1 Validated ToC for P stakeholder group

February 2024. In keeping with principle 8, the information gathered and conclusions drawn from this analysis were communicated to the stakeholders who contributed to the report and all those who were materially affected by the activity.

#### **Data collection**

In addition to the data gathered during the consultation period at the start of this programme, a range of additional data were gathered from all stakeholders as the study progressed. For the main stakeholder (Participants), a range of measures were obtained via online surveys using Qualtrics (access was secured through the FC initiative gatekeeper) at baseline, 3 months (3 M), 6 months (6 M) and 12 months (12 M) to investigate the outcomes identified by this stakeholder group in Steps 2 and 3 above. In addition, objective (anthropometric and fitness) measures were gathered across all time points. This is shown below in Table 1:

For all other stakeholders in this study VC, SO, CP, a cross sectional survey was administered through the FC gatekeeper at 12 M and asked whether they experienced the outcomes identified by that stakeholder group (as defined in the ToC) as well as follow up valuation questions on these outcomes.

# Profile of participants and participation levels

From the list of 123 registered members of the FC initiative at the outset of this programme, 71 members participated in the study; the mean age of the players was  $39.3\pm7.0$  years and the majority had some/completed 3rd level education [87.3%], were married/cohabiting [84.6%] and living with partner/children/parents/friends [94.3%]. Mean body mass index (BMI) was  $27.2\pm3.5$  Kg/m², with 60% classed as overweight and a further 13.9% as obese. A large majority [83.1%] had three or more cardiovascular disease (CVD) risk factors as defined in Daly et al., 2024 [29]. Most participants [81.7%] failed to meet

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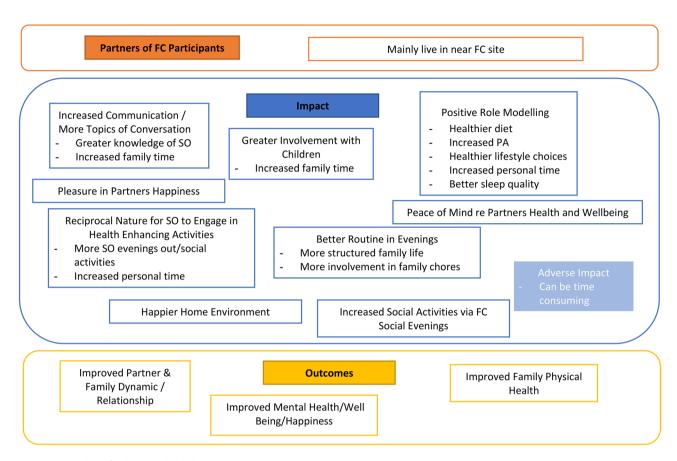


Fig. 2 Validated ToC for the SO stakeholder group

recommended guidelines for fruit and vegetable consumption, while habitual weekly alcohol consumption was also prevalent [71.9%]. Some 68.9% failed to meet the recommended PA levels, and 66.1% met the threshold for an at-risk waist circumference of  $\geq 94$  cm. Notably, despite their health risk, 90.1% of participants described their general health as good, very good or excellent and this lack of awareness of health risk among men has been well established in men's health research [for full details see [29].

An important part of SROI analysis is to consider if the population needs to be segmented based on different levels of attainment of various outcomes. Two variables were considered for segmenting the outcomes of the participants (age and the participation level) and while no significant variation was found in participant outcomes across age categories, differences in attainment of outcomes were found for different participation levels i.e. those who participated more frequently attained more benefits than those who participated less frequently (see Table 2). The breakdown in outcomes by participation levels will be shown later in this paper. Participation data were gathered by the FC initiative gatekeeper for the 12 M of this study, and the research team collapsed this data into three participation categories [Low (participation

less than once a fortnight), medium (participation at least once a fortnight but less than once a week) and high (participation of at least once a week) – note that a four-week holiday period was allowed for]. From the total pool of participants, 58 (47%) fell into the low category, 47 (38%) fell into the medium category, and 18 (15%) fell into the high category. The extent to which participants completed the full 12 M of this initiative was also considered and the extent to which outcomes were achieved was also adjusted based on those who had partially or fully completed the 12 M initiative.

#### Measurement of outcomes

Having identified outcomes for each stakeholder during the initial consultation period, the next stage in the data collection process involved collecting outcome data — with an initial requirement to select indicators that could be used to assess achievement of the various outcomes. Details of this process which was undertaken throughout 2021 and 2022, is shown in Table 2.

#### Valuation of outcomes

The next step in the SROI was the valuation of outcomes; this monetisation process can be challenging and can involve the use of financial proxies [30]. In the case of the

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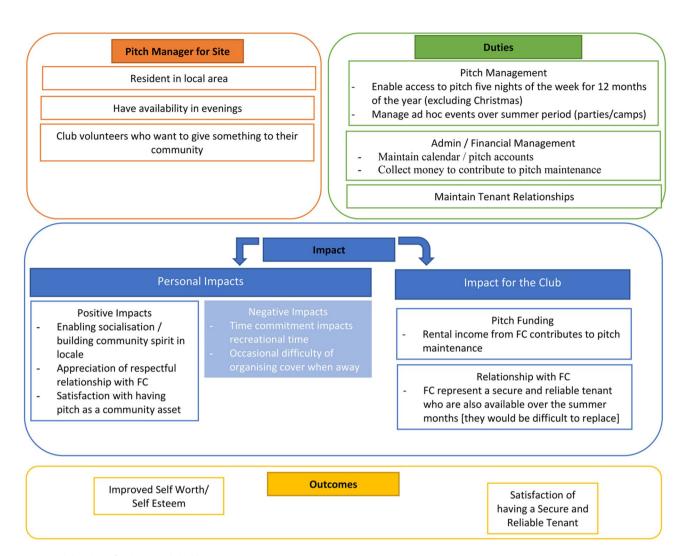


Fig. 3 Validated ToC for the CP stakeholder group

FC initiative, the 12 M surveys for all stakeholders [generated on Qualtrics] that were administered via the FC initiative gatekeeper asked each group if (a) they experienced the outcome and b) to place a financial value (from €0- €10,000) on each outcome they experienced from their direct or indirect involvement in the FC initiative. They were asked to consider this value either as a direct benefit from having this outcome or as an opportunity cost [an estimate of how much they would be willing to pay to avoid not achieving this outcome]. This led to a series of valuations being generated for each stakeholder outcome and the average value for each benefit (from the completed survey for each stakeholder) was then extrapolated to the wider total FC initiative population of 123 members. A summary of the average values assigned to each outcome is shown below in Table 3.

#### Assessment of causality and impact

Having valued the respective outcomes, the SROI approach uses methods to estimate how much of the

outcome would have happened regardless and what proportion of the outcome can be isolated from one's activities. This approach to establishing impact is important as it reduces the risk of over claiming and enhances the credibility of the final outcome. This approach involves four steps which are explained in Table 4, as well as how they impacted the final valuations for the various outcomes (Table 5).

#### Determination of inputs and final SROI calculation

Inputs are viewed as the resources necessary for the activity or the resources used in the creation of the activity, and this can include money, time, volunteer hours and in-kind resources. For this FC initiative, account information was obtained from the FC gatekeeper who confirmed the direct costs of the initiative and opportunity costs [minimum/living wage rates] were added for volunteer time. This led to the following cost data for delivering the FC initiative for 12 months (Table 6).

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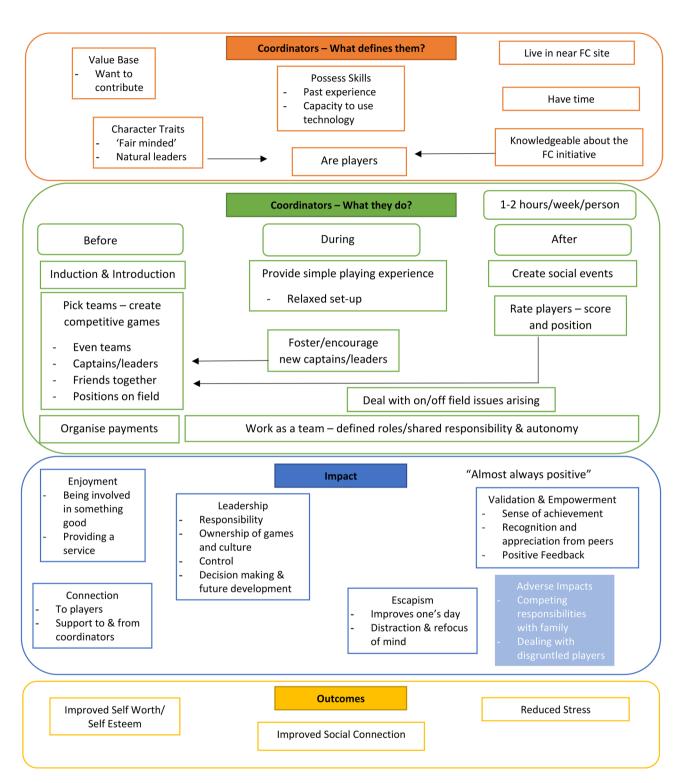


Fig. 4 Validated ToC for the VC stakeholder group

With the monetary values of inputs (Table 6) and outcomes (Table 5) now available, the final SROI could be determined – this divided the output cost by the input cost to generate an SROI for FC of €17.60 (Table 7).

This confirms that  $\[ \in \] 17.60$  of social value was created for every  $\[ \in \] 1$  invested in FC, and it is evident from Table 5 that the majority of the total value (57%) is created by the P, followed by SO (29%), and the VC (13%) and the CP (1%). Sensitivity and scenario analysis were conducted on

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**Table 1** Data collected from FC participants at each time point

Variable	Baseline	3 M	6 M	12 M
Online Surveys				
Age	$\sqrt{}$	$\sqrt{}$		$\sqrt{}$
Ethnicity	$\sqrt{}$			
Nationality	$\sqrt{}$			
Level of Education	$\sqrt{}$			
Relationship Status	$\sqrt{}$	$\sqrt{}$		
Living Arrangements – Who & Number	$\sqrt{}$	$\sqrt{}$		
Employment Status	$\sqrt{}$	$\sqrt{}$		
Financial Strain	$\sqrt{}$			
How they heard About FC	$\sqrt{}$			
Primary Motive for Playing	$\sqrt{}$			
Travel Time	$\sqrt{}$			
Self-Rated Ability to Play	$\sqrt{}$			$\sqrt{}$
Benefits from playing in last 3 M/6 M/12 M				$\sqrt{}$
Adverse outcomes from playing in last 3 M				$\sqrt{}$
Engagement in another PA in the last 3 M				$\sqrt{}$
Quality of Life via SF-12	$\sqrt{}$			$\sqrt{}$
Sleep Quality (Snyder et al., 2018)	$\sqrt{}$			$\sqrt{}$
Self Esteem (Rosenburg Self-Esteem Scale; 1979)	$\sqrt{}$			$\sqrt{}$
Loneliness (UCLA Loneliness Scale; Russell, 1996)	$\sqrt{}$			$\sqrt{}$
Physical Activity Frequency	$\sqrt{}$			
Vigorous Physical Activity Frequency				$\sqrt{}$
Fruit & Vegetable Consumption	$\sqrt{}$			$\sqrt{}$
Smoking Status	$\sqrt{}$			$\sqrt{}$
Alcohol Consumption	$\sqrt{}$			$\sqrt{}$
Modifications to lifestyle behaviours over last $3\text{M}\&6\text{M}$		$\sqrt{}$	$\sqrt{}$	
Objective Measures				
Aerobic Fitness (YoYo Intermittent Recovery Test Level 1)	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$
Body Mass Index	$\sqrt{}$			
Weight (Seca 813 electronic weighting	√	√	√	√
scales)	•	•	•	•
Height (Seca 213 stadiometer)	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$
Waist Circumference (Irish Heart Foundation	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$
tape)				

some of the key factors driving this decision (changes in percentages of participants getting benefits, changes in discounting percentages) and this led to the final SROI being found to range from &14.08 to &26.14 (note that this analysis adopted a prudent approach to valuation to avoid being seen to over-claim for benefits). The strong positive SROI calculation can be seen as an endorsement of the value-for-money offered by the FC initiative.

#### Scaling up this intervention to ten sites

While the €17.60 SROI figure in Table 7 represents the ratio of outcomes to inputs for one FC site, consideration was also given to the likely total SROI if this initiative was to be implemented across multiple sites. At present, the

FC initiative operates at two sites in Ireland and the FC initiative is currently the subject of a research project that aims to realise the vision of sustainably scaling FC games for the benefit of population health [13]. Plans are underway to develop the business model, the IT infrastructure and the capacity building training for staff and volunteers required for the replication of the FC initiative. In terms of anticipated costs:

- Staff: It is proposed that two full time members of staff are required to co-ordinate operations, managing and delivering training, and supporting volunteers
- IT Application: The effective automation of organising recreational football through a technological solution is paramount to managing the complexity and building a network of sites that connect participants from all backgrounds to the FC community. A proposed IT solution aims to deliver a progressive mobile web App that will coordinate participants and volunteers through our dedicated game delivery cycle. It will also support incentivisation of participants and recognition of volunteers, drive community belonging and deliver enhanced governance of game fees received.
- Insurance: While Football Cooperative currently has a public liability insurance policy, which uniquely covers injuries to FC participant members or a thirdparty/member of the public, it is envisaged that a public liability insurance policy will be extended to all FC sites in the future.
- Equipment: The FC initiative delivery model provides for the provision of equipment (footballs, bibs, medical kits etc.), which are stored in a secure storage unit at the Football Cooperative site. This unit is accessible only by dedicated VC registered to that site and ensures the smooth delivery of weekly games.

Based on the above points, an estimate of the likely benefits and costs involved in a scale-up to ten sites is shown below (Table 8).

This table shows that the SROI does reduce to &fint eq 9.46 when ten FC sites are established as additional costs such as an IT system and administrative staff will likely be needed to facilitate this expansion; however, this is still a strong positive endorsement of the value created per unit of investment in the FC initiative. It is also anticipated that as the FC initiative increases to more than 10 sites in the medium term, the SROI will increase as a number of the above costs such as the IT system are fixed and not linked to activity levels. While every effort has been made to be prudent with the valuations, it is acknowledged that this is an extrapolation of a single sample to different

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**Table 2** FC stakeholder attainment of outcomes

Participant Outcomes	Indicators	used			Attainment of Benefit		Comments
Change in Physical Health	Benefit in physical health attained if there had been either a 5% weight loss or a 10% Yo Yo Intermittent Recovery Test improvement, or a waist loss of 3 cm AND if participants self-reported a physical health benefit.		Attainment rates varied by participation: 33% (Low), 40% (Medium) and 67% (High). These rates were lower for those who did not complete the full 12 M.		While the majority experienced a physical benefit, 6% of participants had a decline in physical health i.e. a decline over the threshold limits in the opposite direction.		
Change in Mental Health	ment in the	e Rosenbe	ere had been a 10% imperg self-esteem scale AN orted a mental health be	D if	for low and medium participants compared to 42% for high participants. Lower attainment of benefit if less than 12 M of initiative the		While not all experienced a mental benefit, no participants experienced a decline over the threshold limit in the opposite direction for self-esteem.
Change in Social Health	(improvem	ent) in th	ere had been a 10% dec e loneliness scale AND if ed a social health benefit	par-	Attainment rates varied by (Low), 44% (Medium) and 4 attainment for those who of M of the initiative.	45% (High). Lower	While the majority experienced a social benefit, 5% of participants had a decline in social health over the threshold limits in the opposite direction.
Injuries			surveys if they had expe r, or moderate injury fro		66% reported experiencing reported – this did not vary than 12 M had less chance	by participation leve	e injury, no major injury els. Those who completed less
Significant otl	ners						
Improved partr relationship	ner/family		at 12 M asking if they nced the outcome	rate	of the participant so that the	ose who participated	usted based on the participation less or who did not complete t rates. 70% achieved this benefit
Improved famil health	ly physical		at 12 M asking if they nced the outcome		lar to the above outcome, at participation rate of the part		ed based on completion rate d this benefit
Improved men ing & happines		,	nt 12 M asking if they nced the outcome		lar to the above outcome, at participation rate of the part	,	ed based on completion rate d this benefit
Volunteer coo	rdinator ou	ıtcomes					
Increased self-e	esteem & sel	f-worth			rperienced the outcome	All 6 volunteer coor	dinators achieved this outcome
Increased socia	ıl connectio	n	Survey at 12 M asking i	f they ex	rperienced the outcome	All 6 volunteer coor	dinators achieved this outcome
Reduced stress			Survey at 12 M asking i	f they ex	rperienced the outcome	All 6 volunteer coor	dinators achieved this outcome
Community p							
Satisfaction at I	_			-	y experienced the outcome		partners achieved this outcome
Improved self-e	esteem & sel	lf-worth	Survey at 12 M askii	ng if the	y experienced the outcome	Both community	partners achieved this outcome

settings where real-world conditions can differ from what was experienced in this study site; this is acknowledged as a limitation of this analysis.

# **Discussion and conclusions**

High SROI values are desirable when assessing initiatives, with SROI values greater than one suggesting a greater amount of outputs to the costs of the initiative. This study of one site in the FC initiative has revealed a ratio of inputs to outputs (SROI) of €17.60 which represents a high ratio of programme benefits to input costs. This suggests that the initiative offers real value for money in terms of the benefits obtained for what are relatively modest investment levels (Table 6). This compares favourably with previous SROI studies of football related activities − for example, Lombardo et al., 2019 [24] evaluated the social impact of an Italian second division football club and results showed a social impact created over a season amounting to approximately 44

million Euro against a financial investment of 15 million Euro i.e. an SROI ratio of 2.98:1. Within Ireland, a 2019 study of 'Na Fianna' Gaelic Athletic Association (GAA) club returned a social dividend of €15 per €1 invested [31] while an exercise-based programme for individuals with COPD (lung conditions) in Ireland returned a social value of €10-€22 per €1 invested [32]. The larger SROI for this social football initiative can be attributed to the lower operating costs of a single site, which was the focus of this study; the input costs, for example, do not include costs associated with ownership of property, such as insurance. It is acknowledged that it is difficult to standardise the comparison of SROI studies [30] with some studies being forecast (conducted before an intervention to predict social value) and others being evaluative (conducted after an intervention and based on outcomes that have occurred). Within the wider public health field, high quality SROI studies have found ratios 3:1 and 12.5:1 which again are much lower than that found for

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**Table 3** Valuation of outcomes for each stakeholder

Participant Outcomes	Average Value	Attainment Rate	Number of People	Total Value of Outcome
Increase in Physical Health	3,718 (low) * 5,280 (medium) * 5,529 (high) *	33% (low) * 40% Medium * 67% (high) *	0% Medium * 47 (medium)	
Decrease in Physical Health	-3,718 (low) -5,280 (medium) -5,529 (high)	6% (low) 6% (medium) 6% (high)	58 (low) 47 (medium) 18 (high)	-33,799 <b>**</b>
Increase in Mental Health	3,787 (low) 5,014 (medium) 4,569 (high)	26% (low) 26% Medium 42% (high)	58 (low) 47 (medium) 18 (high)	135,255 **
Increase in Social Health	2,536 (low) 3,795 (medium) 3,090 (high)	11% (low) 44% Medium 45% (high)	58 (low) 47 (medium) 18 (high)	111,985 **
Decrease in Social Health	–2,536 (low) –3,795 (medium) –3,090 (high)	5% (low) 5% (medium) 5% (high)	58 (low) 47 (medium) 18 (high)	-19,054 <b>**</b>
Increased Injuries	-1,858 (all participants)	66% (full completion) 51% (partial completion)	75 (full) 48 (partial)	-137,222 <b>**</b>
Significant others' outcomes				
Improved partner/family relationship	3,765 (all participants)	0 (low) 10% Medium 30% (high)	58 (low) 47 (medium) 18 (high)	36,521 **
Improved family physical health	4,937 (all participants)	0 (low) 20% Medium 50% (high)	58 (low) 47 (medium) 18 (high)	86,891 **
Improved mental wellbeing & happiness	5,019 (all participants)	0 (low) 10% Medium 30% (high)	58 (low) 47 (medium) 18 (high)	48,684**
Volunteer coordinator outcom	es			
Increased self-esteem & self-worth	4,423 (all participants)	100%	6	26,538
Increased social connection	5,552 (all participants)	100%	6	33,312
Reduced stress	5,027 (all participants)	100%	6	30,162
Community Partner Outcomes	3	·		
Satisfaction at having Reliable Tenant	2,486 (all participants)	100%	2	4,972
Improved self-esteem & self-worth	3,739 (all participants)	100%	2	7,478

<sup>\*</sup>The average value and attainment rates were computed separately for those who had high, medium and low participation rates

this study [30]. Elsewhere [33], 40 SROI studies of public health interventions were analysed and it was found that SROIs varied considerably from 1:1 to 65:1. Furthermore, in a study of the SROI of various mental health interventions found that the vast majority of reported studies had an SROI of less than  $\in$ 10 [34]. In short, the SROI valuation of  $\in$ 17.60 for one FC site (a figure which has been validated by Social Value UK (2024)) represents an excellent ratio of benefits to costs for this initiative.

The holistic nature of an SROI process that considers the entire social impact and a strong engagement with stakeholders means that additional insights can be offered into the relative importance of the outcomes to stakeholders. This culminates in financial valuations

for all outcomes and costs. For this study, the benefits (€381,366) are divided between the P (57%), SO (29%), VC (13%) and CP (1%). While it is unsurprising to see the majority of the benefits accruing to the participants, this study highlights the additional 43% of value that is derived from other stakeholders. This confirms that the benefits of men participating in football extend to family units and to the volunteers who help organise such activities. This is consistent with Hunt et al., 2020 [12] who looked at the wider impacts of FFIT and found that new friendships with other participants continued after the programme sessions, and that their involvement with their family had increased as a result of the programme. Furthermore, the monetising of the

<sup>\*\*</sup>While the total value for each row is worked out as the sum of the number of participants multiplied by the attainment rate and by the average value, adjustments were made for those who did not complete the full 12 M of the programme

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 Table 4 Discounts applied to stakeholder outcomes

Impact factor	Description and Rate(s) Applied to FC Outcomes	Justification
Deadweight	This seeks to assess what would have happened without the activity. To assess this, the research team consulted the SROI practitioner and published SROI reports as well reviewed the interview discussions with stakeholders. This led to rates of between 5%–10% being applied to participants, significant others and volunteer coordinators while a rate of 40% was applied to community partners (values shown below in Table 5).	• From talking to participants, it was evident that football had been part of their lives since childhood and that they were clear about their desire to play football. The same level of satisfaction was not available from other activities. • The SO that were interviewed did not believe that relationships would have improved as they had done without the FC initiative being in place. • The volunteer coordinators are a group with skills that could be applied to other contexts but given their love of football as participants, similar percentages [10%] were applied to this group. • The CP spoke of the positive relationships developed with the FC initiative, but it is acknowledged that the Astroturf facility could likely be leased to alternative clients and thus a higher deadweight% of 40% was applied.
Displacement	This is viewed as the extent to which the outcomes considered in this FC SROI evaluation had displaced other outcomes. The rates applied were slightly higher to the deadweight rates for participant outcomes and largely similar to deadweight rates for the other stakeholders.	<ul> <li>Many participants stated that they couldn't replace playing football with other sports/forms of exercise because they wanted something competitive.</li> <li>The SO felt that football related benefits would be very unlikely to arise from other activities given the profile of the participants.</li> <li>The VC were not engaged in other voluntary activities at the start of the programme (largely due to Covid) and thus the volunteer time did not displace any activities.</li> <li>The CP acknowledged that the facility could likely be leased to alternative clients if the FC initiative did not exist (a higher rate was thus applied).</li> </ul>
Attribution	This is defined as 'Who else contributed to the change?'. To assess this, participants were asked in surveys about the extent to which other activities may have contributed to the outcomes obtained from FC. This led to rates of between 5% and 15% for participant outcomes (linked to levels of participation as shown below) while rates of between 15% and 30% were applied to the other stakeholders.	<ul> <li>For participants, the rates were linked to the survey responses received.</li> <li>Similar rates of attribution were applied to the SO outcomes as was applied to the participants.</li> <li>For VC, a higher rate was applied to reflect that these were also participants who were getting mental and social benefits from being a participant.</li> <li>For CP, the 15% rate reflects the view that the successful running of the FC initiative was not work that was shared with any other person or activity [apart from two weeks of the year when these partners were on holidays].</li> </ul>
Drop-off	This considers the reduction of the outcome in future years after the intervention has been implemented.  The view of the research team was that there would be a high drop off if the FC initiative activity stopped, and thus the outcomes obtained were assumed to cease after one year (adopting a conservative approach).	<ul> <li>The FC initiative is going strong since the completion of this SROI assessment and is expected to continue delivering social value for many years to come.</li> <li>However, when looking at how long the outcomes would last if the activity (FC) ceased to exist, the research team concluded that the benefits would likely cease to exist quickly (after six months).</li> </ul>

various benefits, particularly for the participants, allows an assessment of how important the various benefits (physical, mental and social) are perceived by them. In the case of the FC initiative study, participants valued the physical benefits the highest followed by the mental and social benefits. However, when the cost of injuries is subtracted from the net physical benefit, it was found that the net physical benefit for participants reduced to 15% while the net mental and social benefits increased to 54% and 32% respectively. This confirms findings of previous studies that the mental and social benefits are as important as physical benefits to participants. For example, a 'Coping through football' initiative in London found that participants experienced benefits such as increased self-confidence, reduced anxiety and a greater sense of belonging, which helped in some cases to tackle isolation issues [35]. On a wider level, Eather et al.,2023 and McGrane et al., 2020 [21, 36] found that participation in team sports such as football has a positive impact on mental health such as improved confidence levels and coping skills.

While SROI represents a leading tool for attempting to measure the impacts and added value of organisations or activities, it also presents limitations some of which could be addressed in future work. Firstly, as an economic evaluation tool, SROI in its efforts to ensure comparability across programmes, tries to include all benefits of an intervention, and this poses challenges in that non-health outcomes are often difficult to convert into monetary terms [37]. In this regard, it is dependent on heuristics, which leaves space for personal judgement and allows for discretion in setting the indicators and quantifying the impact [27]. For this SROI study, 71 participants took part and caution is needed when interpreting from this relatively low number that mitigated against further data stratification. Further research is also needed to establish if the results derived from this urban and affluent population group can be replicated on other sites [29]. The Daly et al. BMC Public Health (2025) 25:4177 Page 12 of 14

**Table 5** Impact of discounts on the final value of the various Outcomes\*

Participant Outcomes	Total Value of Outcome	Dead- weight	Dis- place- ment	Attrib	ution	Final Value of Out- come €
Increase in Physical Health	224,288	5%	10%	30% (I 20% N 10% (I	1edium,	153,999
Decrease in Physical Health	-33,799	5%	10%	30% (I 20% N 10% (I	1edium,	-22,523
Increase in Mental Health	135,255	5%	10%	15% (I 10% N 5% (hi	1edium,	116,019
Increase in Social Health	111,985	10%	10%	15% (I 10% N 5% (hi	1edium,	82,221
Decrease in Social Health	-19,054	10%	10%	15% (I 10% N 5% (hi	1edium,	-13,705
Increased Injuries	-137,222	10%	10%	10%		-100,042
Significant o	others outco	omes				
Improved partner/ family relationship	36,521	15%	15%	15% (low), 10% Medium, 5% (high)		24,482
Improved fam- ily physical health	86,891	15%	15%	15% (low), 10% Medium, 5% (high)		53,433
Improved mental wellbeing & happiness	48,684	15%	15%	15% (low), 10% Medium, 5% (high)		32,636
Volunteer co	oordinator o	outcomes				
Increased self-esteem & self-worth	26,538	10%		10%	30%	15,047
Increased social connection	33,312	10%		10%	30%	18,888
Reduced stress	30,162	10%		10%	30%	17,102
Community	Partner Ou	tcomes				
Satisfaction at having Reliable Tenant	4,972	40%		40%	15%	1,521
Improved self-esteem & self-worth	7,478	40%		40%	15%	2,288
Total Value						381,366

<sup>\*</sup>Note that drop-off is not included in this table of discounts as the programme outcomes are assumed to last for just one year

timing of this study (just after Covid-19) may also have contributed to the positive outcomes achieved in that it commenced when most of the world's population were

**Table 6** Input costs per stakeholder group

Stakeholder	Description	Input Cost
Participants	Cost of pick-up games	12,885
Volunteer Coordinators	General Overheads	557
	IT Costs	406
	Marketing/Social Media	200
	Committee Costs	360
	Labour Costs <sup>1</sup>	6,750
Community Partners	Labour Cost <sup>2</sup>	510
Significant Others	No costs were incurred <sup>3</sup>	0
Total Cost		€21,668

<sup>&</sup>lt;sup>1</sup>VC labour estimated as 1.5 h/week \* 50 weeks \* 2021 [€15.00] \* 6 volunteers

**Table 7** Final SROI calculation

Total Value of Outcomes	381,366
Total Value of Inputs	21,668
Social Return on Investment	17.60

**Table 8** SROI calculation for ten FC sites

	€	Total
Value of Benefits *		
Participants	2,020,792	
Significant Others	1,105,514	
Volunteer Coordinators	340,377	
Community Partners	3,810	3,470,492
Value of Inputs		
Volunteer Coordinators (60)	82,730	
Community Partners (20)	5,100	
IT System	40,000	
Insurance	20,000	
Equipment	10,000	
Administrative Staff	80,000	366,680
Social Return on Investment for 10 Sites		9.46

<sup>\*</sup>For ten sites, the number of participants for one site (123) was multiplied by 10 to give 1,230 participants

not active in sports participation; future replications of this study will assist in assessing if this has an impact on the final valuations attributed to this initiative.

#### Abbreviations

SROI Social Return on Investment
 FC Football Cooperative
 P Participants
 SO Significant Others
 VC Volunteer Coordinators
 CP Community Partners

# **Supplementary Information**

The online version contains supplementary material available at https://doi.org/10.1186/s12889-025-25288-2.

Supplementary Material 1.

<sup>&</sup>lt;sup>2</sup>CP labour estimated as 1 h/week \* 50 weeks \* 2021 National Minimum Wage [€10.20]. Two volunteers shared this responsibility and collectively they gave 1 h/week

<sup>&</sup>lt;sup>3</sup>Based on focus group and interview discussions, no costs were considered to be incurred by this stakeholder group

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All members of the Advisory Board which, at the time of writing, has evolved into include 31 individuals across 16 organisations that represent government departments, football and sporting organisations, national and regional health organisations, a social enterprise organisation, an all-island men's health organisation and a volunteer organisation. The research team, representing academics from Ireland and Denmark across Departments of Sports and Exercise and Faculties of Health Sciences and Business. The Football Cooperative players for participating in games and this research and all other stakeholders identified.

#### Authors' contributions

Draft manuscript, SD, TE, PC, GC.Review and editing of manuscript, SD TE, PC, GC, MH, AMcG, LF, NR, PKData collection, SD, PC, TE, Data analysis, SD, TE, MHData curation, SD, MH, TEFigures, SD, PC, TETables, SD, TE, MH,

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#### Data availability

No datasets were generated or analysed during the current study.

# **Declarations**

#### Ethics approval and consent to participate

Ethical approval for the project was sought and obtained from the ethics committees at the South East Technological University [SETU] [WIT2021REC006]. This project has been registered with the 'International Standard Randomised Controlled Trial Number' registry [ISRCTN17438373]. All participants received an information sheet and gave informed consent in writing.

#### Consent for publication

Not applicable.

#### **Competing interests**

The authors declare no competing interests.

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